

NOTES ON NEOPHYTES 2. NEW RECORDS FOR ASTERACEAE FROM
THE CENTER OF MEXICO.

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ABSTRACT

Bellis perennis L., *Guizotia abyssinica* (L.f.) Cass., and *Hypochoeris radicata* L. are registered as new records for México. In addition, *Calypocarpus vialis* Less., *Melampodium divaricatum* (L. Rich ex Pers.) DC., and *Parthenium hysterophorus* (Ortega) Rollins are reported as new for the Valley of México. *Cirsium vulgare* (Savi) Ten. grows in Toluca and México City, and *Matricaria discoidea* DC. was found in the Valley of Toluca; both represent additions to the flora of the Center of México.

KEY WORDS: Asteraceae, México, weeds, introduction, *Bellis*, *Guizotia*, *Hypochoeris radicata*

RESUMEN

Bellis perennis L., *Guizotia abyssinica* (L.f.) Cass., y *Hypochoeris radicata* L. son registrados como nuevos para México, y *Calypocarpus vialis* Less., *Melampodium divaricatum* (L. Rich ex Pers.) DC., y *Parthenium hysterophorus* (Ortega) Rollins como nuevos para el Valle de México. *Cirsium vulgare* (Savi) Ten. crece cerca de Toluca y en la Ciudad de México y *Matricaria discoidea* DC. fue encontrado en el Valle de Toluca; ambos son nuevos para el centro de México.

PALABRAS CLAVE: Asteraceae, México, malezas, introducción, *Bellis*, *Guizotia*, *Hypochoeris radicata*

A number of weed species not recorded previously for a particular region or the country were encountered during studies of the urban vegetation of México City and other observations in central México. Here, eight new records of Asteraceae are discussed.

For this work, the herbaria MEXU (Herbario Nacional, Instituto de Biología, Universidad Nacional Autónoma de México) and ENCB (Herbario de la Escuela Nacional de Ciencias Biológicas, Instituto Politécnico Nacional) were revised in the appropriate sections.

Most species treated here are well-known elsewhere on the continent, so only a brief description and diagnostic features are given. *Guizotia abyssinica* (L.f.) Cass. is described in more detail, as it is relatively new to the Americas. Voucher specimens are deposited at MEXU; the collection numbers of voucher specimens are the author's, unless otherwise specified.

BELLIS PERENNIS L.

ENGLISH NAME: English daisy or lawn daisy; SPANISH NAME: margarita de los prados (Chile, Ramírez de Vallejo 1980), margarita pequeña (*Gándara s.n.* [MEXU]). The filled, cultivated form is frequently called "bombón" in México.

TRIBE: Astereae.

NATIVE DISTRIBUTION: Most variable in southern Europe; its extensive distribution in most parts of Northern and Central Europe is probably archaeophytic (Wagenitz 1979).

SECONDARY DISTRIBUTION: United States: "chiefly in the Pacific Northwest; local in the northeastern states and southward; naturalized to some extent in Newfoundland" (Muenscher 1955). Of temperate South America, it is not mentioned for Perú (Müller & Müller 1977) or Argentina (Marzocca 1976), but is present in Chile (Ramírez de Vallejo 1980). It is also naturalized in New Zealand.

NEW TO: México.

LOCALITIES: The author first collected the species in a park in México City. Later it was found in a number of public green spaces in México City, for example in the Alameda and in various sites of Ciudad Universitaria, and, abundantly, in several lawns of the city of Toluca (for example, around the University Rectory, in the Alameda, in the lawn surrounding the public library on Avenida Hidalgo). Hundreds of individuals of a long-peduncled form grow in a forest of *Abies religiosa* at 2900 m on the Toluca Valley side of the Sierra de las Cruces, along a small brook, probably escaped from the gardens of a nearby restaurant, but apparently quite naturalized. Similar plants were found on the Valley of México side of the same mountain range (J. Flores p. 48, 16 Sep 1975, Desierto de los Leones, D.F., Humid forest, collected near a brook. [MEXU]). An unnumbered and undated, but old-looking herbarium

specimen from the valley of México was also located (*Gándara*, "San Jacinto, D.F., [MEXU]. *Gándara* collected in the 1920s, comm. pers. Teresa Germán, but his specimens were only recently incorporated into the herbarium).

VOUCHER SPECIMENS AT MEXU: Distrito Federal: 4359, 1 Aug 1993, México City, Delegación Cuauhtemoc, Colonia Doctores, Jardín Artes Gráficas, south of the kiosk, 19° 24' N, 99° 08' W, 2230 m, shaded lawn dominated by *Pennisetum clandestinum*, with *Trifolium repens*, *Apium* (*Ciclospermum*) *leptophyllum*, *Cotula australis*. Estado de México: 4770, 9 Feb 1994, around Rectory of the Universidad Autónoma del Estado de México, Toluca, 19° 17' N, 99° 39' W, 2655 m, *Pennisetum clandestinum*-lawn; 5767, 19 May 1996, near La Escondida restaurant, La Marquesa, along México-Toluca highway, 19° 17' N, 99° 24' W, 2900 m, forest dominated by *Abies religiosa*.

DIAGNOSTIC CHARACTERS: A small perennial herb with spatula leaves in a basal rosette, a single peduncle, a head of approximately 2 cm in diameter, white to rose-colored ligules and yellow tubular flowers. The small achenes lack a pappus.

ECOLOGY: Originally a species of rich meadows, it adapted admirably to the conditions of constant shearing in lawns, and is one of the few highly constant species found in this anthropogenic vegetation type in the temperate and more humid parts of Europe (Wittig 1991).

OBSERVATIONS: *Bellis* has probably been overlooked for a long time, despite some large and old populations, because it is very similar in appearance to a form of *Erigeron longipes* DC. in DC., a widespread Mexican-Mesoamerican weed. This very variable species of *Erigeron* may have leaves similar in shape to *Bellis*, disposed rosette-like, and a subscapose stem (even though grassland specimens generally have leafy stems). The inflorescence is strikingly similar at first sight (color, shape, involucre, size). Close examination shows, however, a bristly pappus and a small leaf or bract on the stem in *Erigeron*, both absent in *Bellis*. In the field, populations of *Erigeron* generally have unequal peduncle lengths, whereas *Bellis* usually has heads at roughly the same height. Ecologically, *Erigeron* tends more to open and drier sites, whereas *Bellis* thrives on rich soils of shady places.

NATURALIZATION STATUS: Municipal gardeners declared that the plant has been present in México City and Toluca for more than ten years, hence it can be considered naturalized.

RECOMMENDATIONS: The species is not controlled, as the plant is considered attractive, nor is it necessary outside of golf courses.

CALYPTOCARPUS VIALIS LESS.

TRIBE: Heliantheae.

DISTRIBUTION: Ranging around the Caribbean basin from Louisiana to Yucatán and Cuba. A closely related species, *Calyptocarpus wendlandii*, grows in Central

America and is sometimes listed under this name (McVaugh & Smith 1967). In Nueva Galicia it occurs "only as a common weed of city streets of Guadalajara . . . and in Jocotepec. It is possible that it has been recently introduced into other cities in western Mexico; it is primarily a weed of the Atlantic slope" (McVaugh 1984).

NEW TO: The Valley of México.

LOCALITIES: One patch with about 20 small plants was found between a house wall and the cobbled surface of a residential street in Coyoacán.

VOUCHER SPECIMENS AT MEXU: Distrito Federal: 4704, 29 Jan 1994, México City, Delegación Coyoacán, Colonia Campestre, Callejón Corregidora, 19° 21' N, 99° 11' W, 2235 m.

DIAGNOSTIC CHARACTERS: An inconspicuous perennial herb characterized by opposite leaves, few, relatively small yellow-flowered heads with short ligules, a cylindric involucre of about 5 phyllaries and dimorphic achenes with two awns.

ECOLOGY: Widespread on disturbed ground and desert plains (McVaugh 1984).

NATURALIZATION STATUS: It is not possible to say if it is naturalized, though the species is certainly a candidate for expansion in the frost-free center of México City. It has been found repeatedly at similar altitudes (in the state of Hidalgo: Villaseñor 581a at 2000 m, R. Hernández Magaña 4999 and 5046 at 2000 m, in Veracruz: Nevling & Gomez-Pompa 2120 at 2300 m, all at MEXU), though generally it grows at lower altitudes.

RECOMMENDATIONS: None.

CIRSIUM VULGARE (SAVI) TEN. (= *C. LANCEOLATUS* L.)

ENGLISH NAME: Bull thistle, common thistle; SPANISH NAME: Thistles in general are usually called "cardo".

TRIBE: Cardueae.

NATIVE DISTRIBUTION: Mediterranean area, western Asia and northern Africa; the distribution in Central Europe is probably archaeophytic.

SECONDARY DISTRIBUTION: Canada, United States, Guatemala, Costa Rica, Brasil, Perú, Argentina, Chile, Australia, New Zealand, Kenya, and South Africa (Holm, *et al.* 1979; Ramírez de Vallejo 1980; Wagenitz 1987).

NEW TO: Central México. The species is mentioned by Rzedowski (1993) as an "occasional" weed in México, probably based on a citation for Baja California (Wiggins 1980).

LOCALITIES: Four populations were found, but only the first one collected: 1) around a small artificial lake north of Toluca (Estado de México) and some adjoining vacant lots (over one hundred individuals), 2) along the railway tracks northeast of Toluca (about 800 individuals), 3) near Lerma, Estado de México, also near railway tracks (about 50 individuals and 4) México City (Distrito Federal) on a vacant lot (about five vegetative individuals).

VOUCHER SPECIMENS AT MEXU: Estado de México: 5966, 7 Sep 1996. Highway from Toluca westwards to Morelia (No. 15., edge of a small reservoir at the height of Zinacatepec, 19° 17' N, 99° 42' W, 2650 m.

DIAGNOSTIC CHARACTERS: A robust, spiny annual to biannual herb with lilac-colored tubular flowers, a feathery pappus, a winged stem and lobed leaves, the lobes terminating in spines; the leaves are covered with rough hairs and frequently also with spines, particularly the basal leaves.

ECOLOGY: A widespread weed of ruderal sites, particularly building rubble, meadows, open forests, dunes and riparian woods in Europe, preferring medium-textured, neutral and N-rich soils. The plant does not withstand cultivation (Moore & Frankton 1974), waterlogging, or deep shade. Klinkhamer & de Jong (1993) provide a detailed account of the ecology of the species.

OBSERVATIONS: The species is somewhat similar to *Cirsium mexicanum*, but can be distinguished easily by its fully winged stem. Remarkably, goats seem to eat it (Wagenitz 1987).

NATURALIZATION STATUS: From the size of the populations and their distribution the species appears to be naturalized and spreading.

RECOMMENDATIONS: The species can be invasive and noxious (*e.g.*, Briese 1988; Sindel 1991), and the populations are not yet large, so a systematic search for the plant and eradication is recommended.

GUIZOTIA ABYSSINICA (L.f.) CASS.

ENGLISH NAMES: Niger seed, Niger oil; SPANISH NAME: Niger.

TRIBE: Heliantheae.

NATIVE DISTRIBUTION: The Ethiopian highlands.

SECONDARY DISTRIBUTION: Early migration to India and other parts of Africa (Baagoe 1974); a recent invader in Brazil and Cuba (J.-L. Villaseñor, pers. comm.).

NEW TO: México. No literature references or herbarium specimens could be located.

LOCALITIES: Single specimens were found in two places in México City.

VOUCHER SPECIMENS AT MEXU: Distrito Federal: Both from México City, Delegación Cuauhtémoc, 4369, 1 Aug 1993, Colonia Obrera, Calle Bolívar, between Torquemada and Campo, 19° 24' N, 99° 08' W, 2235 m, in a weedy flower bed, with *Chenopodium murale*, *Sisymbrium irio*, and *Galinsoga quadriradiata*, soil pH-value 6.4; 4768, 11 Feb 1994, Colonia Tlatelolco, Eje Central Lázaro Cárdenas, near the Plaza de las Tres Culturas, 19° 27' N, 99° 08' W, 2235 m, on rubble.

DESCRIPTION: An annual, branched herb with sessile to subconnate lanceolate leaves. The peduncled yellow-flowered heads are up to 3.5 cm in diameter and are arranged in large corymbose cymes. The involucre is double, with five ovate leafy outer bracts up to 1 cm long and the numerous inner bracts scarious, somewhat shorter and with a ciliate apex. The paleae are similar to the inner bracts. The 6-8 ray flowers have a ligule up to 1.8 cm long and 6-8 mm wide. The flattened, dark achenes are 3.5 to 5.0 mm long. Chromosome number: $2n = 30$ (for a full description, see Baagoe 1974).

DIAGNOSTIC CHARACTERS: The combination of annual habit, the inflorescence type, the 5 broad outer involucre leaves, the plane paleae and the size of the achenes distinguish the species from its congeners and other Heliantheae.

ECOLOGY: In Ethiopia the altitudinal range of the species is from 1500-2300 m, so it is a potential invader in the Valley of México, which lies between 2050 and 2200 m. Outside of Ethiopia it is always a weed or cultivated and it prefers semiarid climates.

OBSERVATIONS: The species is cultivated for the edible, fast-drying oil contained in the achenes.

NATURALIZATION STATUS: The plant is probably not yet naturalized.

RECOMMENDATIONS: *Guizotia abyssinica* should be watched for in the Mexican tropics, and controlled if it appears. It can be a noxious, invasive weed. Its seeds are sold by the kilogram as bird feed under the name of "niger" in Central Mexican markets, which makes occasional dispersal of seeds inevitable.

HYPOCHOERIS RADICATA L.

ENGLISH NAME: Common catsear; SPANISH NAME: Hierba del chanco (Chile, Ramírez de Vallejo 1980).

TRIBE: Lactuceae.

NATIVE DISTRIBUTION: Europe and northern Africa.

SECONDARY DISTRIBUTION: Canada, United States, Costa Rica, Panamá, Ecuador, Colombia, Chile, Argentina, Australia, New Zealand, Japan, Bangladesh, South Africa (Holm, *et al.* 1979; Ramírez 1980; and MEXU).

NEW TO: México. No literature references or herbarium specimens were encountered. L.H. Shinnars annotated Correll & Correll 38775, 19 May 1970, (MEXU) from Newton County as "New to Texas". The related species *Hypochoeris glabra* L. has been found in Tijuana and Guadalajara.

LOCALITIES: *Hypochoeris* was found in two places 15 km apart: a lawn between highway and train tracks near Metepec (more than 100 individuals on a surface of approx. 150 × 3 m); and in disturbed vegetation of La Marquesa National Park, along the México City-Toluca highway in the Sierra de las Cruces. Soil removal for landscaping apparently provided the initial open habitat in the second locality, but the species is advancing into neighboring alpine tussockgrass vegetation. The population is large in area (approx. 500 × 700 m) and in individuals (several thousand).

VOUCHER SPECIMENS AT MEXU: Estado de México: 5772A, 10 July 1996, Highway from México City to Toluca, near the Metepec underpass. 19° 17' N, 99° 35' W, 2600 m; 5965, 7 Sep 1996, Highway from México City to Toluca, at "La Marquesa", where the toll road and the free highway meet, 19° 18' N, 99° 22' W, 3020 m.

DIAGNOSTIC CHARACTERS: A perennial herb somewhat similar in habit to *Taraxacum*. The leaves are mainly in a rosette, the stems may be ramified, the flowers of the head are yellow and ligulate, the marginal ones are longer than the involucre, and of a greenish-gray tint on the outside. The leaves are stiff-haired; the stem is glabrous and solid.

ECOLOGY: The species "flourishes on most soils" (Salisbury 1961). In Europe, the species is frequently dispersed in lawn seed of *Dactylis glomerata* L. (Wagenitz 1987).

NATURALIZATION STATUS: The populations are large and apparently spreading; the species is probably naturalized.

RECOMMENDATIONS: *Hypochoeris* is not generally a noxious weed, but it should not be tolerated in a nature reserve, particularly as it seems to be spreading into native grassland.

MATRICARIA DISCOIDEA DC.

[= *Matricaria matricarioides* (Less.) Porter *pp.*, *Matricaria suaveolens* (Pursh) Buch.; *Chamomilla suaveolens* (Pursh) Rydb.]

ENGLISH NAME: Pineapple weed; SPANISH NAME: Manzanilla (Chile, Ramírez 1980), manzanilla cimarrona (informants in Ocoyoacac, Estado de México).

TRIBE: Anthemideae.

NATIVE DISTRIBUTION: Alaska to Baja California.

SECONDARY DISTRIBUTION: Widely introduced in eastern North America and temperate regions of Eurasia. It also appears naturalized in Chiapas at high altitudes (McVaugh 1984; specimens at MEXU), in South America (Chile, Argentina), and Oceania (Australia, New Zealand) (Wagenitz 1987).

NEW TO: Central México.

LOCALITIES: A population of roughly 25 individuals was found in the city of Toluca in 1996, at the entrance of a stadium used for sports and music events. It grew on a highly treaded lava gravel, the only species there. Later, several well-sized populations of several hundred individuals were encountered at El Pedregal, Ocoyoacac. Local people say it appeared in 1994 and has spread rapidly since along the edges of paths and maize fields. The appropriate name "manzanilla cimarrona" (roughly, odd chamomile) was promptly applied to it.

VOUCHER SPECIMENS AT MEXU: Estado de México: 5705, 3 Feb 1996, entrance to the baseball stadium in the "Ciudad Deportiva" west of Toluca (County of Zinacatepec), 19° 17' N, 99° 41' W, 2720 m; 6500, 10 May 1997, construction site near road from Ocoyoacac to Santiago Tianguistengo, El Pedregal, near the spring, 19° 15' N, 99° 28' W, 2580 m.

DIAGNOSTIC CHARACTERS: A small, aromatic herb easy to recognize. It has bipinnatifid leaves with more or less linear segments and a conic, hollow receptacle, no ligulate flowers and yellow-greenish tubular flowers. The aspect of the head lead to the English common name.

ECOLOGY: "A weed of cultivated ground and waste places" (McVaugh 1984) is a well-known component of communities of treaded ground and along highways and train tracks in Europe and Asia (Salisbury 1961; Wagenitz 1987).

OBSERVATIONS: The appearance at the entrance of a stadium curiously in accordance with observations in Europe, where the first appearance was sometimes linked to traveling show-people (Wagenitz 1979). The small species has seeds that become sticky when wet and their dispersal via feet and wheels is notorious (Salisbury 1961).

NATURALIZATION STATUS: The population at the Toluca stadium was still there on two subsequent visits, the last one on Feb. 28, 1997.

RECOMMENDATIONS: The populations are still localized, and the plant can be troublesome, so eradication is recommended.

MELAMPODIUM DIVARICATUM (RICH EX PERS.) DC

SPANISH NAME: Mozote amarillo, flor amarilla.

TRIBE: Heliantheae.

NATIVE DISTRIBUTION: Lowlands of México and Central America; it extends to northern South America and eastern Brazil.

SECONDARY DISTRIBUTION: "... introduced into Cuba, Burma, Puerto Rico and the Virgin Islands" (Stuessy 1972).

NEW TO: The Valley of México.

LOCALITIES: The species is quite common, though it does not form large populations, in the southern and eastern parts of México City, in neglected lawns, vacant lots or tree rings.

VOUCHER SPECIMENS AT MEXU: Distrito Federal: Both México City: 4501, 29 Aug 1993, Delegación Azcapotzalco, Colonia Euzkadí. Av. Ceylan, near the Post Office. 19° 28' N, 99° 09' W, 2235 m; 4610, 19 Sep 1993, Delegación Iztapalapa, Colonia Leyes de Reforma, Calle 25 de Septiembre de 1873, 19° 22' N, 99° 03' W, 2235 m.

DIAGNOSTIC CHARACTERS: A medium-sized erect annual herb with opposite, variably shaped, but generally broadly ovate leaves. The peduncles are 2-14 cm long, the heads 10-15 mm in diameter and yellow-flowered. The five outer phyllaries are green, much shorter than the rays, and united at the base (1/3 to 1/4), forming a cup; the phyllary margins are thick and scabrous-ciliate.

ECOLOGY: The species is a major weed of cultivated ground and ruderal sites in the warmer parts of México. Also it may grow, according to McVaugh (1984), in wet meadows, ravines, clearings, and disturbed places in tropical deciduous forest or pine forest.

OBSERVATIONS: Though the species grows mainly in the tropical lowlands, it has been found repeatedly above 2000 m outside of the valley of México, particularly in Michoacán. One specimen (*J.M. Escobedo* 360, 27 Sep 1985, Cuanajo, Mpio. Pátzcuaro [MEXU]) was found at 2500 m.

NATURALIZATION STATUS: It appears naturalized.

RECOMMENDATIONS: None. Control seems neither possible nor necessary. It is a dominant weed in the lower-lying areas near México City (for example, around Cuernavaca) and sure to be reintroduced if eradication were attempted.

PARTHENIUM HYSTEROPHORUS (ORTEGA) ROLLINS

ENGLISH NAME: Ragweed parthenium, parthenium weed; SPANISH NAMES: Cicutilla, confitillo, hierba amargosa and many more (Martínez 1979).

TRIBE: Heliantheae.

NATIVE DISTRIBUTION: The monographer of the genus, Rollins (1950), believes that the species originated in the Caribbean basin.

SECONDARY DISTRIBUTION: Southeastern United States through México to South America. An adventive in many subtropical regions, for example Vietnam, Australia and India, where it is a noxious weed, particularly in pastures (Rollins 1950; Chippendale & Panetta 1994).

NEW TO: The Valley of México. It is not mentioned in the Flora of the Valley of México (Rzedowski & Rzedowski 1985) or other floristic lists. Numerous herbarium specimens exist, however (all at MEXU) (*Orcutt* 4102, 20 Sep 1910, México, D.F., det. by J.M. Greenman 1910; *Urbina s/n*, 8 Sep 1883, Chapultepec (Valle de México); *Gándara s/n*, no date, Mixcoac, D.F.; *Salazar s/n*, 30 Aug 1911, Serranía de Guadalupe, D.F.; *Bolaños* 92, 22 Oct 1976, km 27 of the highway México-Textcoco, det. Francisco Espinosa; *Conzatti & Noriega s/n*, 7 Nov 1917, Valle de Teotihuacán). Though the main distribution of the species is the low to middle-altitude tropics (McVaugh 1984) it has been found repeatedly at altitudes above 2000 m outside of the Valley of México, for example in the states of Zacatecas, Guanajuato, Puebla, and Querétaro.

LOCALITIES: It is widespread, especially in the eastern (and more arid) part of the Valley, often forming pure stands, particularly along train tracks, on vacant lots, under high-tension lines, and around the numerous informal soccer fields.

VOUCHER SPECIMENS AT MEXU: Distrito Federal: All México City: 4421, 15 Aug 1993, Delegación Cuauhtemoc, Colonia Tlatelolco, Unused train tracks, Eje 2 Norte, between Lerdo and Eje 1, 19° 27' N, 99° 08' W, 2235 m; 4441, 16 Aug 1993, Delegación G.A. Madero, Colonia Nuevo Atzacualco. Calle 329, 19° 29' N, 99° 04' W, 2235 m; 4661, 25 Oct 1993, Delegación Coyoacán, Colonia Culhuacán, 19° 19' N, 99° 06' W, 2235 m; 4731, 6 Feb 1994, Delegación Iztapalapa, Colonia Santa Rosa, Vacant lots east of the large wholesale market (Central de Abasto), 19° 22' N, 99° 04' W, 2235 m.

DIAGNOSTIC CHARACTERS: A large, erect, much-branched annual herb, with alternate, glandular, bipinnately lobed leaves. The small (4-5 mm wide), white-flowered heads are arranged in racemes. The double involucre has an outer series of five greenish, obovate phyllaries and an inner series of five scarious, suborbicular ones. There are five ligulate flowers with very short ligules, each one attached to two sterile disc flowers. - The species is sometimes difficult to distinguish from *Parthenium bipinnatifidum* (Ortega) Rollins, a species endemic to the Mexican highlands, particularly in young specimens; the two species may occur together. The upper leaves of *P. hysterothorus* are generally undivided, linear and bract-like, whereas in *P. bipinnatifidum* they are lobed; the heads of *P. hysterothorus* always

surpass the leaves considerably, whereas in *P. bipinnatifidum* they are about on upper leaf level (this is a good field character, but cannot always be seen in herbarium specimens); *P. hysterothorus* is quite erect, whereas *P. bipinnatifidum* tends to be down-lying to ascending. The principal leaf divisions point forwards in *P. hysterothorus*, whereas in *P. bipinnatifidum* they are almost at right angles.

ECOLOGY: The species is a common ruderal weed (less so in cultivated fields) of the Mexican tropics. It may also grow in tropical deciduous forests.

OBSERVATIONS: *Parthenium hysterothorus* was introduced to India and Australia in the 1950s, has spread rapidly in the following decades and is now a major pasture, cropland and ruderal weed. In both countries it is not only considered a noxious agricultural weed but also a hazard to public health (*e.g.*, Chippendale & Panetta 1994; Sciramarao, *et al.* 1991; Kumari & Kohli 1987; Pandey & Dubey 1988). Apparently 7-10% of those populations are susceptible to both contact dermatitis and allergic rhinitis, often severe, due to exposure to *Parthenium* pollen. I found no references to research on Mexican human populations, but even if the incidence of allergy is lower, it is certainly undesirable to have an additional stress factor in the already critical Valley of México environment.

NATURALIZATION STATUS: *Parthenium hysterothorus* is thoroughly naturalized.

RECOMMENDATIONS: Eradication appears quite impossible at the present size of the populations. However, managers of public green spaces, particularly sports fields, should be warned that it is an allergenic plant, and it should be controlled in places with many visitors.

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